

# HP HP Network Node Manager i Software Smart Plug-in Performance for Traffic

For the Windows® and Linux operating systems

Software Version: 9.11

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Reports Online Help

Document Release Date: August 2011

Software Release Date: August 2011



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## Introduction

The HP Network Node Manager i Software Smart Plug-in Performance for Traffic (NNM iSPI Performance for Traffic) extends the capability of NNMi to monitor the performance of the network with respect to the data that is flowing through it. The NNM iSPI Performance for Traffic aggregates and enriches the data from the IP flow records that are exported by the routers. The NNM iSPI Performance for Traffic gives an insight into network traffic and helps you monitor network performance by analyzing the traffic flow.

With the NNM iSPI Performance for Traffic, you can perform the following tasks:

- Generating traffic data performance reports
- Historical traffic analysis of flow records
- Correlation of obtained IP flow records with the NNMi topology for context-based analysis
- Understanding network traffic patterns
- Network application performance management and root cause analysis

## Report Categories

The NNM iSPI Performance for Traffic provides you with three major categories of reports based on the age of the data used for report building.

- **Interface Traffic:** This category includes reports built with the raw data available in the NPS database.
- **Interface Traffic\_1\_min:** The NNM iSPI Performance for Traffic aggregates the data forwarded by the Master Collector at an interval of one minute and stores the data into the NPS database. The aggregated data includes fewer data samples than the raw data, and therefore, can be stored into the database for up to 31 days. The Interface Traffic\_1\_min category includes reports and reportlets generated from the data aggregated at every minute.
- **Interface Traffic\_15\_min:** The NNM iSPI Performance for Traffic aggregates the data forwarded by the Master Collector at an interval of 15 minutes and stores the data into the NPS database. The aggregated data includes fewer data samples than the raw data or the data aggregated at every 15 minutes, and therefore, can be stored into the database for up to 400 days. The Interface Traffic\_15\_min category includes reports and reportlets generated from the data aggregated at every 15 minutes.

## Interface Traffic Report Category

The Interface Traffic report category presents the reports and reportlets that are generated with the raw data available in the NPS database. The reports in this category operate on all the traffic data samples that are collected by the Leaf Collectors. This data is preserved in the NPS database in the following forms:

- Data aggregated at every hour (stored for seven days)
- Data aggregated at every minute (stored for three days)

Use this category of reports to only perform a detailed analysis for traffic for a short time interval and a limited set of days.

## Calendar Report

The Calendar report uses a traditional, calendar-style layout to show hourly statistics for two metrics in a single, extended graph spanning over multiple days.

### Features and Defaults

The Calendar Report defaults to:

Interfaces (interfaces that are configured to report flow packets) = All

Dates/Times = Last 31 days

Primary Metric (Yellow in the graph) = Period Length (secs) (sum)

Secondary Metric (blue in the graph) = Volume - In Bytes (sum)

The default view shows the data for the current month. Depending on how long the NNM iSPI Performance for Traffic has been collecting data from flow collectors, you may have the option of looking at data for the previous two months as well as the last 31 days.

### Use Case

Use this report to observe:

- Gradual trends over time
- Isolated spikes
- Abnormal conditions

This report also reveals:

- Hour of day patterns
- Comparison of two metrics

## Chart Detail Report

The Chart Detail report enables you to perform a trend analysis for the network health and performance .

The Chart Detail report displays a comparative analysis of the selected metrics for each time unit.

Using this report, you can:

- Analyze the trend of network health and performance for multiple contributors to network traffic based on one unit of time.
- Detect any persistent problem in the network health and performance.

You can use the following Time Controls parameters:

- Start Date/Time
- Time Range
- Display Grain
- Auto Refresh
- Hours of Day
- Day of Week


#### Features and Defaults

The graph on this report tracks up to six metrics over the selected time period.

Unless you modify the defaults, Chart Detail defaults to the following:

- Flow collectors = All
- Metric on the Y1 axis = Period Length (secs) (sum)
- Metric on the Y1 axis = Volume - In Bytes (sum)

To add another primary or secondary metric, click **Options** , and then click .

To remove a primary or secondary metric that you have already added, click **Options** , and then click .

The Chart Detail report enables you to view the data in the tabular format as well. To view the table, click **Options**, and then select Table. The Table appears instead of the chart. To view both the chart and the table, click **Options**, and then select Chart and Table.

## Heat Chart Report

The Heat Chart report provides the hourly or daily performance of a single metric. in a color-coded format. This report cannot operate with a time range of less than 24 hours.

#### Features and Defaults

The legend at the top of the report maps a range of normalized performance values to a particular color. Beneath the legend, a table represents the normalized values of a performance metric (rows of the table represent hours of the day; columns of the table represent days). Each cell inside the table is color-coded and each cell inside the table indicates a specific value of the metric.

You can move the mouse pointer on the cell to see the raw data for each hour.

The default topology filters for the Heat Chart are as follows:

- Interfaces = All
- Time Period = Last 31 days
- Hour of Day = All
- Day of Week = All
- Metric = Volume – In Byte (sum)

Time range options are any period that is not less than 24 hours.

## Most changed Report

This report compares performance the components for two different (consecutive) time periods and ranks network elements by the amount of change. The sort order is most-changed to least-changed.

You can use the following Time Controls parameters:

- Start Date/Time
- Time Range
- Auto Refresh
- Hour of day
- Day of Week

### Features and Defaults

You can obtain Most changed report with user-specified metric, applied on the topology filter for the selected time interval.

This report contains one table and provides data for one metric only.



The table presents the following columns:

- Component
- Performance for the previous time period
- Performance for the selected time period
- Growth, expressed as a percentage increase
- Change

The Most Changed report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Rank Metric = Volume - In Bytes (sum)
- Top N Option = Top 10

Using the Most Changed report, you can identify the network elements that are affected by the change in traffic flow. You can also perform a root cause analysis of the network congestion.

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

## Top N Report



This report ranks top contributors to the network traffic by the metric you select.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Top N Chart

This report ranks network traffic metrics by the top N 'Grouping By' metrics and shows the data in the form of line graphs over time (N different line graphs).



#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10



By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Peak Period

The Peak Period report ranks the metrics that indicate the network traffic during the busiest time of the selected time range.

You can use the following Time Controls parameters:

- Start Date/Time
- Time Range
- Display Grain
- Auto Refresh
- Hours of Day
- Day of Week


#### Features and Defaults

The graph on this report tracks up to six primary metrics and six secondary over the selected time period.

Unless you modify the defaults, Chart Detail defaults to the following:

- Flow collectors = All
- Metric on the Y1 axis = Period Length (secs) (sum)
- Metric on the Y1 axis = Volume - In Bytes (sum)

To add another primary or secondary metric, click **Options** , and then click .

To remove a primary or secondary metric that you have already added, click **Options** , and then click .

The Chart Detail report enables you to view the data in the tabular format as well. To view the table, click **Options**, and then select Table. The Table appears instead of the chart. To view both the chart and the table, click **Options**, and then select Chart and Table.

## Managed Inventory

The Managed Inventory report lists the count of unique instances of the available topology attributes that you can use for network traffic analysis. You can use the attributes to filter the data of your interest and create a report that represents only the area of your interest. The report presents

the list of attributes in the form of a table; the Count column of the table indicates the number of entries for each attribute.

## Dashboard Reportlets


Dashboard reportlets (Reportlets) enable you to view a snapshot of reports at a faster speed. Reportlets display only one metric (however, you can choose multiple 'Grouping by' metrics). You can use the bookmarks generated by the Reportlets to construct custom dashboards. For more information, see the [Creating Custom Dashboard Using BI Portal](#).

This report group provides the following reportlets:

- [Top N Line Chart](#)
- [Top N Chart](#)
- [Top N Stacked Chart](#)
- [Top N Table with Bars](#)
- [Top N Table](#)


## Top N Chart

This reportlet ranks network elements by the metric you select. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.


## Top N Line Chart

This reportlet shows values of the metric you select for different network elements. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.


## Top N Stacked Chart

This reportlet shows values of the metric you select for different network elements. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By' metric value represented by a unique color.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.


## Top N Table

This reportlet shows values of the metric you select for different network elements. The reportlet displays the distribution of data over the range of time in the form of a table.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.

## Top N Table with Bars

This reportlet shows values of the metric you select for different network elements. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.

## Interface Traffic\_15\_min Report Category

The Interface Traffic\_15\_min category includes reports and reportlets generated from the data aggregated at every 15 minutes. The data, which is aggregated at every 15 minutes, is stored into the NPS database for up to 400 days. Therefore, you can use this report group to build reports with historical data and view reports on performance metrics for the last one year.

Reports in this category queries the data that has undergone processing and filtering to preserve *only* the top contributors to network traffic collected for every 15 minutes. Data about the less significant contributors to network traffic is displayed as *Anonymous* on these reports. The above processing is done on every flow-enabled interface.

This category of reports includes the following types of reports:

- Top contributors reports: Reports that enable you to directly inspect top contributors for applications, type of service, sources, destinations, and conversations.
- Reports for contextual analysis: The top contributors reports enable you to further analyze the data by generating reports by using the contextual navigation feature of the NPS. The top

contributors report enables you to select one of the displayed contributors and launch a report that provides drill-down analysis for the selected contributor.

## Interface Traffic 15 Min Top N Analysis Report

NNM iSPI Performance for Traffic categorizes the traffic data stored in NPS to effectively serve queries and retain larger volume of data for longer time periods. The following reports enable you to analyze the categorized traffic data based on data retention period, traffic type (traffic mapped to application, ToS, conversations, etc), and the source or destination for the traffic flow:

Available 15 Minute Top N Reports

- Interface Traffic\_15\_min Top Applications for ToS Report:<sup>1</sup>
- Interface Traffic\_15\_min Top Conversations for Application Report:<sup>2</sup>
- Interface Traffic\_15\_min Top Conversations for ToS Report:<sup>3</sup>
- Interface Traffic\_15\_min Top Destinations for Applications Report:<sup>4</sup>
- Interface Traffic\_15\_min Top Sources for Application Report:<sup>5</sup>
- Interface Traffic\_15\_min Top Sources for ToS Report:<sup>6</sup>
- Interface Traffic\_15\_min Top Applications Report:<sup>7</sup>
- Interface Traffic\_15\_min Top Conversations Report:<sup>8</sup>
- Interface Traffic\_15\_min Top Destinations Report:<sup>9</sup>
- Interface Traffic\_15\_min Top Interfaces Report:<sup>10</sup>
- Interface Traffic\_15\_min Top Sources Report:<sup>11</sup>
- Interface Traffic\_15\_min Top TypeOfService Report:<sup>12</sup>

However, listing all these reports in the NPS Home Page may cause considerable usability problem. Selecting between various types of Top N reports may prove to be a time consuming and

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<sup>1</sup>Displays the top applications across the network for the selected ToS value.

<sup>2</sup>Displays the top talkers (source-destination pairs) across the network for the selected application.

<sup>3</sup>Displays the top talkers (source-destination pairs) across the network for the selected ToS value.

<sup>4</sup>Displays the top destination hosts receiving data packets from different hosts across the network for the selected application.

<sup>5</sup>Displays the top hosts (hosts that send out data packets) across the network generating flow packets mapped to the selected application.

<sup>6</sup>Displays the top source hosts (hosts that send out data packets) across the network generating flow packets with the selected ToS value.

<sup>7</sup>Displays the top N applications across the network that contribute to the network traffic.

<sup>8</sup>Displays the top talkers (source-destination pairs) across the network. You can use this report to monitor the flow of data between two hosts.

<sup>9</sup>Displays the top N hosts across the network receiving the largest volume of data packets.

<sup>10</sup>Displays the top N interfaces across the network with largest incoming and outgoing traffic volume.

<sup>11</sup>Displays the top N hosts across the network sending largest volume of data packets to different destinations.

<sup>12</sup>Displays the top contributors to traffic based on selected Type of Service (ToS) values.

repetitive process. To overcome this problem, NNM iSPI Performance for Traffic enables you to select the Top N Analysis report, that works as the launching point for all the 15 minute Top N reports.

**To launch the Top N reports from the Top N Analysis report:**

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min**.
3. Select **Top N Analysis** .
4. In Report Type panel, select the type of the report you want to launch. and then click **Confirm Selection**. The default selection is Top Interfaces. NNM iSPI Performance for Traffic launches the following reports for each option:
  - Top Conversations: Launches the Interface Traffic\_15\_min Top Conversations Report.
  - Top Interfaces: Launches the Interface Traffic\_15\_min Top Interfaces Report.
  - Top Destinations: Launches the Interface Traffic\_15\_min Top Destinations Report.
  - Top Sources: Launches the Interface Traffic\_15\_min Top Sources Report.

Follow these steps **only** if you have selected any of the following options:

- Top Applications
  - a. Select **Application Name**.

**Note:** NNM iSPI Performance for Traffic sorts the list of applications alphabetically.
  - b. NNM iSPI Performance for Traffic sets the application name to analyze the report data.
  - c. Select any of the following Topology Filters to filter the traffic mapped to the selected application:
    - Sources for Application: Launches the Interface Traffic\_15\_min Top Sources for Application Report.
    - Destinations for Application: Launches the Interface Traffic\_15\_min Top Destinations for Application Report
    - Conversations for Application: Launches the Interface Traffic\_15\_min Top Conversations for Application Report
  - d. Click **Confirm Selection**.
- Top Type of Service
  - a. Select **Type of Service**.

**Note:** NNM iSPI Performance for Traffic sorts the list of type of services alphabetically.
  - b. NNM iSPI Performance for Traffic sets the selected type of service to analyze the report data.
  - c. Select any of the following Topology Filters to filter the traffic mapped to the selected type of service:
    - Application for ToS: Launches the Interface Traffic\_15\_min Top Applications for ToS Report.
    - Sources for ToS: Launches the Interface Traffic\_15\_min Top Sources for ToS Report.

- Conversations for ToS: Launches the Interface Traffic\_15\_min Top Conversations for ToS Report.

d. Click **Confirm Selection**.

Usually Top Interfaces is the default option for the Top N Analysis report. NNM iSPI Performance for Traffic selects this option automatically every time the Top N Analysis Report is launched. If you select the topology filter as either Application Name or Type of Service (either using the Topology Filter tab or using the drill-down option), then NNM iSPI Performance for Traffic automatically selects the corresponding report-type (Top Application or Top ToS), when 'Top N Analysis' report is launched next

You can set the topology filters directly using Topology Filters tab in NPS Home Page or using the drill-down options in the Top N Analysis Report. Once selected, they can only be removed by the Reset feature. However, the specific filters applied to a report depends on that report only. For example, even if you have set the topology filter on Application Name, if the report launched is Top ToS, NNM iSPI Performance for Traffic does not use the filter you have set, as Application Name is not included in the Topology Selector of the Top ToS report.

To check which are the applicable fields to filter on a particular report Launch Topology Selector in the context of that report. That is, first launch that report and then launch the Topology Selector using the Topology Filters tab.

To remove or change the values of a topology filter, select Topology Filters from the navigation panel, and click **Launch Topology Selector** button.

## Interface Traffic 15 Min Top N Chart Analysis Report

NNM iSPI Performance for Traffic categorizes the traffic data stored in NPS to effectively serve queries and retain larger volume of data for longer time periods. The following reports enable you to analyze the categorized traffic data based on data retention period, traffic type (traffic mapped to application, ToS, conversations, etc), and the source or destination for the traffic flow:

Available 15 Minute Top N Chart Reports

- Interface Traffic 1 min - Applications\_for\_ToS - Top N Chart Report:<sup>1</sup>
- Interface Traffic 1 min - Conversations\_for\_Application - Top N Chart Report:<sup>2</sup>
- Interface Traffic 1 min - Conversations\_for\_ToS - Top N Chart Report:<sup>3</sup>
- Interface Traffic 1 min - Destinations\_for\_Applications - Top N Chart Report:<sup>4</sup>
- Interface Traffic 1 min - Sources\_for\_Application - Top N Chart Report:<sup>5</sup>

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<sup>1</sup>Displays the top applications across the network for the selected ToS value.

<sup>2</sup> Displays the top talkers (source-destination pairs) across the network for the selected application.

<sup>3</sup> Displays the top talkers (source-destination pairs) across the network for the selected ToS value.

<sup>4</sup> Displays the top destination hosts receiving data packets from different hosts across the network for the selected application.

<sup>5</sup> Displays the top hosts (hosts that send out data packets) across the network generating flow packets mapped to the selected application.

- Interface Traffic 1 min - Sources\_for\_ToS - Top N Chart Report:<sup>1</sup>
- Interface Traffic 1 min -Top\_Applications - Top N Chart Report:<sup>2</sup>
- Interface Traffic 1 min - Top\_Conversations - Top N Chart Report:<sup>3</sup>
- Interface Traffic 1 min - Top\_Destinations - Top N Chart Report:<sup>4</sup>
- Interface Traffic 1 min - Top\_Interfaces - Top N Chart Report:<sup>5</sup>
- Interface Traffic 1 min - Top\_Sources - Top N Chart Report:<sup>6</sup>
- Interface Traffic 1 min - Top\_TypeOfService - Top N Chart Report:<sup>7</sup>

However, listing all these reports in the NPS Home Page may cause considerable usability problem. Selecting between various types of Top N Chart reports may prove to be a time consuming and repetitive process. To overcome this problem, NNM iSPI Performance for Traffic enables you to select the Top N Chart Analysis report, that works as the launching point for all the 15 minute Top N Chart reports.

#### **To launch the Top N Chart reports from the Top N Chart Analysis report:**

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min**.
3. Select **Top N Chart Analysis** .
4. In Report Type panel, select the type of the report you want to launch. and then click **Confirm Selection**. The default selection is Top Interfaces. NNM iSPI Performance for Traffic launches the following reports for each option:
  - Top Conversations: Launches the Interface Traffic 15 min - Top\_Conversations - Top N Chart Report.
  - Top Interfaces: Launches the Interface Traffic 15 min - Top\_Interfaces - Top N Chart Report.
  - Top Destinations: Launches the Interface Traffic 15 min - Top\_Destinations - Top N Chart Report.
  - Top Sources: Launches the Interface Traffic 15 min - Top\_Sources - Top N Chart Report.

Follow these steps **only** if you have selected any of the following options:

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<sup>1</sup> Displays the top source hosts (hosts that send out data packets) across the network generating flow packets with the selected ToS value.

<sup>2</sup> Displays the top N applications across the network that contribute to the network traffic.

<sup>3</sup> Displays the top talkers (source-destination pairs) across the network. You can use this report to monitor the flow of data between two hosts.

<sup>4</sup> Displays the top N hosts across the network receiving the largest volume of data packets.

<sup>5</sup> Displays the top N interfaces across the network with largest incoming and outgoing traffic volume.

<sup>6</sup> Displays the top N hosts across the network sending largest volume of data packets to different destinations.

<sup>7</sup> Displays the top contributors to traffic based on selected Type of Service (ToS) values.

- Top Applications
  - a. Select **Application Name**.

**Note:** NNM iSPI Performance for Traffic sorts the list of applications alphabetically.
  - b. NNM iSPI Performance for Traffic sets the application name to analyze the report data.
  - c. Select any of the following Topology Filters to filter the traffic mapped to the selected application:
    - Sources for Application: Launches the Interface Traffic 15 min - Sources\_for\_Application - Top N Chart Report.
    - Destinations for Application: Launches the Interface Traffic 15 min - Destinations\_for\_Applications - Top N Chart Report
    - Conversations for Application: Launches the Interface Traffic 15 min - Conversations\_for\_Application - Top N Chart Report
  - d. Click **Confirm Selection**.
- Top Type of Service
  - a. Select **Type of Service**.

**Note:** NNM iSPI Performance for Traffic sorts the list of type of services alphabetically.
  - b. NNM iSPI Performance for Traffic sets the selected type of service to analyze the report data.
  - c. Select any of the following Topology Filters to filter the traffic mapped to the selected type of service:
    - Application for ToS: Launches the Interface Traffic 15 min - Applications\_for\_ToS - Top N Chart Report.
    - Sources for ToS: Launches the Interface Traffic 15 min - Sources\_for\_ToS - Top N Chart Report.
    - Conversations for ToS: Launches the Interface Traffic 15 min - Conversations\_for\_ToS - Top N Chart Report.
  - d. Click **Confirm Selection**.

Usually Top Interfaces is the default option for the Top N Analysis report. NNM iSPI Performance for Traffic selects this option automatically every time the Top N Analysis Report is launched. If you select the topology filter as either Application Name or Type of Service (either using the Topology Filter tab or using the drill-down option), then NNM iSPI Performance for Traffic automatically selects the corresponding report-type (Top Application or Top ToS), when 'Top N Analysis' report is launched next

You can set the topology filters directly using Topology Filters tab in NPS Home Page or using the drill-down options in the Top N Analysis Report. Once selected, they can only be removed by the Reset feature. However, the specific filters applied to a report depends on that report only. For example, even if you have set the topology filter on Application Name, if the report launched is Top ToS, NNM iSPI Performance for Traffic does not use the filter you have set, as Application Name is not included in the Topology Selector of the Top ToS report.

To check which are the applicable fields to filter on a particular report Launch Topology Selector in the context of that report. That is, first launch that report and then launch the Topology Selector using the Topology Filters tab.



To remove or change the values of a topology filter, select Topology Filters from the navigation panel, and click **Launch Topology Selector** button.

## Interface Traffic\_15\_min Top TypeOfService Report

The Interface Traffic\_15\_min Top TypeOfService Report is a Top N report. This report shows top contributors to traffic based on Type of Service (ToS) values across the network. Use the 'Select Metric(s)' option to rank ToS values against different metrics. You can further set a filter by clicking on a top Type of Service value, and then analyze further.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows ToS values of flow packets (ingress and egress) with the maximum amount of data (in bytes).

### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top TypeOfService**.
3. Double-click **Top N**. The report appears.

### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, and 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Type of Service
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_15\_min Top Sources Report

The Interface Traffic\_15\_min Top Sources Report is a Top N report. This report shows top N hosts across the network that send data packets to different destinations. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (senders of data packets) that sent maximum amount of data (in bytes).

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top Sources**.
3. Double-click **Top N**. The report appears.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_15\_min Top Destinations Report

The Interface Traffic\_15\_min Top Destinations Report is a Top N report. This report shows top N hosts across the network that receive data packets. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (recipients of data packets) that received the maximum amount of data (in bytes).

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top Destinations**.
3. Double-click **Top N**. The report appears.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_15\_min Top Applications Report

The Interface Traffic\_15\_min Top Applications Report is a Top N report. This report shows top N applications across the network that contribute to the network traffic. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

The NNM iSPI Performance for Traffic provides you with predefined application definitions. You can use the NNM iSPI Performance for Traffic Configuration form to modify the existing application definitions or create new application definitions.

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top\_Applications**.
3. Double-click **Top N**. The report appears.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top Applications report enables you to choose the following additional bandwidth metrics that are not available with other reports:

- Bandwidth - In Mbps (min)
- Bandwidth - In Mbps (max)
- Bandwidth - In Mbps (avg)
- Bandwidth - Out Mbps (min)

- Bandwidth - Out Mbps (max)
- Bandwidth - Out Mbps (avg)
- Bandwidth Utilization (min)
- Bandwidth Utilization (max)
- Bandwidth Utilization (avg)

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.


## Interface Traffic\_15\_min Top Conversations Report

A **conversation** means the flow of data between two hosts. You can use NNM iSPI Performance for Traffic Top Conversations reports to monitor the top talkers in the environment.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

By default, this report shows top N hosts across the network that receive data packets. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of traffic performance indicators for every source-destination pair, or in other words, for every conversation.

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top Conversations**.
3. Double-click **Top N**. The report appears.
4. Click **Options**.
5. Under the "Grouping By" section, click . A new drop-down list appears.
6. In the new drop-down list, select **Source Host Name**.
7. Click **Confirm Selection**.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_15\_min Top Interfaces Reports

This group of reports presents Chart Detail, Heat Chart, Peak period, and Top N reports on interfaces that contribute to the network traffic. These reports are generated with the data aggregated at every 15 minutes over the last 400 days.

#### To launch these reports:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top\_Interfaces**.
3. Double-click the report that you want to view.

## Interface Traffic\_15\_min Top Interfaces Chart Detail

Chart Detail report enables you to perform a trend analysis for the health and performance of top contributors to the network traffic based on historical flow traffic data (as old as 400-day old data).

The Chart Detail report displays a comparative analysis of the selected metrics for each time unit.


#### Features and Defaults

The graph on this report tracks up to six metrics over the selected time period.

Unless you modify the defaults, Chart Detail defaults to the following:

- Flow collectors = All
- Metric on the Y1 axis = Period Length (secs) (sum)
- Metric on the Y1 axis = Volume - In Bytes (sum)

To add another primary or secondary metric, click **Options** , and then click .

To remove a primary or secondary metric that you have already added, click **Options** , and then click .

The Chart Detail report enables you to view the data in the tabular format as well. To view the table, click **Options**, and then select Table. The Table appears instead of the chart. To view both the chart and the table, click **Options**, and then select Chart and Table.

## Interface Traffic\_15\_min Top Interfaces Heat Chart

The Heat Chart report provides the hourly or daily performance of a single metric in a color-coded format for the contributors to the network traffic. This report cannot operate with a time range of less than 24 hours.

### Features and Defaults

The legend at the top of the report maps a range of normalized performance values to a particular color. Beneath the legend, a table represents the normalized values of a performance metric (rows of the table represent hours of the day; columns of the table represent days). Each cell inside the table is color-coded and each cell inside the table indicates a specific value of the metric.

You can move the mouse pointer on the cell to see the data for each hour.

The default options for the Heat Chart are as follows:

- Interfaces = All
- Time Period = Last 1 Hour (you must change this to at least 1 day; the Heat Chart report cannot operate with a time range of less than 24 hours)
- Hour of Day = All
- Day of Week = All
- Metric = Volume – In Byte (sum)

## Interface Traffic\_15\_min Top Interfaces Peak Period

The Interface Traffic\_15\_min Top Interfaces Peak Period report shows the periods when the most amount of data exchange took place in the selected time range. The format of the report is similar to that of Top N reports. You can select metrics that indicate the performance of the network traffic, such as Volume - In Bytes (sum), Volume - In Bytes (sum), Number of Flows Incoming (sum), and so on, to view the period when the metrics reached their highest values.

### Features and Defaults

The Interface Traffic\_15\_min Top Interfaces Peak Period Report defaults to:

Interfaces (interfaces that are configured to report flow packets) = All

Dates/Times = Last 1 hour

Primary Metric (Yellow in the graph) = Volume - In Bytes (sum)

Secondary Metric (blue in the graph) = Volume - Out Bytes (sum)

Grouping By Time Period = Hour

Top/Bottom N = Top 10

## Interface Traffic\_15\_min Top Interfaces Top N



This report ranks flow-enabled interfaces or nodes by the metric you select. Use this report to spot the interface or node that performed at the extremes. You can use this report to analyze the historical data for elements that are exhibiting unusual utilization levels.

### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (Add New Grouping) button. Use the  (Remove Grouping) button to remove a grouping attribute.

### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_15\_min Top Applications by ToS Report

The Interface Traffic\_15\_min Top Applications by ToS Report is a Top N report. This report shows top applications across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic\_15\_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top applications for the selected ToS value. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top applications that contributed with the maximum amount of data to the network traffic characterized by the ToS value 25.

**To launch this report:**

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top TypeOfService**.
3. Double-click **Top N**. The report appears.
4. On the report, click a ToS value of your choice. The following message appears on the page:  
Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.
5. In the navigation pane, click **iSPI Traffic > Interface Traffic\_15\_min > Top Applications\_By\_ToS**, and then double-click **Top N**. The top N applications for the selected ToS are displayed on the report.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

### Interface Traffic\_15\_min Top Sources by ToS Report

The Interface Traffic\_15\_min Top Sources by ToS Report is a Top N report. This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets with a specific ToS value; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic\_15\_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top source hosts for the selected ToS value. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top hosts that sent the maximum amount of data (in bytes) for the flow packets with the ToS value of 25.

**To launch this report:**



1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top TypeOfService**.
3. Double-click **Top N**. The report appears.
4. On the report, click a ToS value of your choice. The following message appears on the page:  
Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.
5. In the navigation pane, click **iSPI Traffic > Interface Traffic\_15\_min > Top Sources\_By\_ToS**, and then double-click **Top N**. The top N sources for the selected ToS are displayed on the report.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.


## Interface Traffic\_15\_min Top Conversations by ToS Report

The Interface Traffic\_15\_min Top Conversations by ToS Report is a Top N report. This report shows top talkers (source-destination pairs) across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic\_15\_min Top TypeOfService report first, select a ToS value, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top talkers contributing to network traffic with the ToS value 25.

**To launch this report:**

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top TypeOfService**.
3. Double-click **Top N**. The report appears.
4. On the report, click a ToS value of your choice. The following message appears on the page:  
Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.
5. In the navigation pane, click **iSPI Traffic > Interface Traffic\_15\_min > Top Conversations\_By\_ToS**, and then double-click **Top N**. The report appears.
6. On the report, click **Options**.
7. Under the "Grouping By" section, click . A new drop-down list appears.
8. In the new drop-down list, select **Source Host Name**.
9. Click **Confirm Selection**.

### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.


## Interface Traffic\_15\_min Top Conversations for Application Report

The Interface Traffic\_15\_min Top Conversations for Application Report is a Top N report. This report shows top talkers (source-destination pairs) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic\_15\_min Top Applications report first, select an application, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top talkers that contribute to the SNMP network traffic.

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top Applications**.
3. Double-click **Top N**. The report appears.
4. On the report, click a ToS value of your choice. The following message appears on the page:  
`Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.`
5. In the navigation pane, click **iSPI Traffic > Interface Traffic\_15\_min > Top Conversations\_for\_Application**, and then double-click **Top N**. The report appears.
6. On the report, click **Options**.
7. Under the "Grouping By" section, click . A new drop-down list appears.
8. In the new drop-down list, select **Source Host Name**.
9. Click **Confirm Selection**.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_15\_min Top Sources by Application Report

The Interface Traffic\_15\_min Top Sources by Application Report is a Top N report. This report shows top source hosts (hosts that send out data packets) across the network that generate flow

packets that are mapped to a specific application; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic\_15\_min Top Applications report first, select an application, and then launch this report. The report shows top source hosts for the selected application. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top hosts that sent the maximum amount of the SNMP traffic.

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top TypeOfService**.
3. Double-click **Top N**. The report appears.
4. On the report, click a ToS value of your choice. The following message appears on the page:  
`Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.`
5. In the navigation pane, click **iSPI Traffic > Interface Traffic\_15\_min > Top Sources\_By\_ToS**, and then double-click **Top N**. The top N sources for the selected ToS are displayed on the report.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_15\_min Top Destinations by Application Report

The Interface Traffic\_15\_min Top Destinations by Application Report is a Top N report. This report shows top hosts (which receive data packets from different hosts) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is

recommended that you launch the Traffic\_15\_min Top Applications report first, select an application, and then launch this report. The report shows top destination hosts for the selected application. You can use the 'Select Metric(s)' option to rank the destination hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows the hosts that received the maximum amount of data (in bytes) for SNMP.

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_15\_min > Top Applications**.
3. Double-click **Top N**. The report appears.
4. On the report, click an application of your choice. The following message appears on the page:  
Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.
5. In the navigation page, click **iSPI Traffic > Interface Traffic\_15\_min > Top Destinations\_By\_Application**, and then double-click **Top N**. The top N destinations for the selected application are displayed on the report.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Dashboard Reportlets

Dashboard reportlets (Reportlets) enable you to view a snapshot of reports at a faster speed. Reportlets display only one metric (however, you can choose multiple 'Grouping by' metrics). You can use the bookmarks generated by the Reportlets to construct custom dashboards. For more information, see the [Creating Custom Dashboard Using BI Portal](#).

## Top Type of Service Group

This group of reportlets presents Top N reportlets for type of service (ToS) values.

### Top N Chart

This reportlet shows values of the metric you select for top ToS values. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

### Top N Line Chart

This reportlet shows values of the metric you select for top ToS values. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

### Top N Table

This reportlet shows values of the metric you select for top ToS values. The reportlet displays the distribution of data over the range of time in the form of a table.

### Top N Table with Bars

This reportlet shows values of the metric you select for top ToS values. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

### Top N Stacked Chart

This reportlet shows values of the metric you select for top ToS values. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By' metric value represented by a unique color.

## Top Sources Group

This group of reportlets presents Top N reportlets for source hosts.

#### Top N Chart

This reportlet shows values of the metric you select for top source hosts. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Line Chart

This reportlet shows values of the metric you select for top source hosts. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

#### Top N Stacked Chart

This reportlet shows values of the metric you select for top source hosts. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Table

This reportlet shows values of the metric you select for top source hosts. The reportlet displays the distribution of data over the range of time in the form of a table.

#### Top N Table with Bars

This reportlet shows values of the metric you select for top source hosts. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

#### Top Destinations Group

This group of reportlets presents Top N reportlets for destination hosts.

#### Top N Chart

This reportlet shows values of the metric you select for top destination hosts. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Line Chart

This reportlet shows values of the metric you select for top destination hosts. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

#### Top N Stacked Chart

This reportlet shows values of the metric you select for top destination hosts. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping

By' metric value represented by a unique color.

#### Top N Table

This reportlet shows values of the metric you select for top destination hosts. The reportlet displays the distribution of data over the range of time in the form of a table.

#### Top N Table with Bars

This reportlet shows values of the metric you select for top source destinations. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

#### Top Applications Group

This group of reportlets presents Top N reportlets for applications.

#### Top N Chart

This reportlet shows values of the metric you select for top applications. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Line Chart

This reportlet shows values of the metric you select for top applications. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

#### Top N Stacked Chart

This reportlet shows values of the metric you select for top applications. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Table

This reportlet shows values of the metric you select for top applications. The reportlet displays the distribution of data over the range of time in the form of a table.

#### Top N Table with Bars

This reportlet shows values of the metric you select for top applications. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.


#### Top Interfaces Group

This group of reportlets presents Top N reportlets for interfaces.




#### Top N Chart

This reportlet shows values of the metric you select for top interfaces that contribute to the network traffic. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.


#### Top N Line Chart

This reportlet shows values of the metric you select for top interfaces that contribute to the network traffic. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.


#### Top N Stacked Chart

This reportlet shows values of the metric you select for top interfaces that contribute to the network traffic. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By' metric value represented by a unique color.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.


#### Top N Table

This reportlet shows values of the metric you select for top interfaces that contribute to the network traffic. The reportlet displays the distribution of data over the range of time in the form of a table.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.

#### Top N Table with Bars

This reportlet shows values of the metric you select for top interfaces that contribute to the network traffic. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.

## Top Conversations Group

This group of reportlets presents reportlets for top talkers in the environment.

### Top N Chart

This reportlet shows values of the metric you select for top talkers in the environment. By default, the reportlet shows data only for top destination hosts. To view data for conversations, you must add another 'Grouping By' metric and set the added metric to Source Host Name. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

### Top N Line Chart

This reportlet shows values of the metric you select for top talkers in the environment. By default, the reportlet shows data only for top destination hosts. To view data for conversations, you must add another 'Grouping By' metric and set the added metric to Source Host Name. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

### Top N Stacked Chart

This reportlet shows values of the metric you select for top talkers in the environment. By default, the reportlet shows data only for top destination hosts. To view data for conversations, you must add another 'Grouping By' metric and set the added metric to Source Host Name. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By' metric value represented by a unique color.

### Top N Table

This reportlet shows values of the metric you select for top talkers in the environment. By default, the reportlet shows data only for top destination hosts. To view data for conversations, you must add another 'Grouping By' metric and set the added metric to Source Host Name. The reportlet displays the distribution of data over the range of time in the form of a table.

### Top N Table with Bars

This reportlet shows values of the metric you select for top talkers in the environment. By default, the reportlet shows data only for top destination hosts. To view data for conversations, you must add another 'Grouping By' metric and set the added metric to Source Host Name. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

## Interface Traffic\_1\_min Report Category

The Interface Traffic\_1\_min category includes reports and reportlets generated from the data aggregated at every 1 minutes. The data, which is aggregated at every 1 minute, is stored into the NPS database for up to 31 days. Therefore, you can use this report group to build reports with historical data and view reports on performance metrics for the last one year.

Reports in this category queries the data that has undergone processing and filtering to preserve *only* the top contributors to network traffic collected for every 1 minute. Data about the less significant contributors to network traffic is displayed as *Anonymous* on these reports. The above processing is done on every flow-enabled interface.

This category of reports includes the following types of reports:

- Top contributors reports: Reports that enable you to directly inspect top contributors for applications, type of service, sources, destinations, and conversations.
- Reports for contextual analysis: The top contributors reports enable you to further analyze the data by generating reports by using the contextual navigation feature of the NPS. The top contributors report enables you to select one of the displayed contributors and launch a report that provides drill-down analysis for the selected contributor.

## Interface Traffic 1 Min Top N Analysis Report

NNM iSPI Performance for Traffic categorizes the traffic data stored in NPS to effectively serve queries and retain larger volume of data for longer time periods. The following reports enable you to analyze the categorized traffic data based on data retention period, traffic type (traffic mapped to application, ToS, conversations, etc), and the source or destination for the traffic flow:

Available 1 Minute Top N Reports

- Interface Traffic\_1\_min Top Applications for ToS Report:<sup>1</sup>
- Interface Traffic\_1\_min Top Conversations for Application Report:<sup>2</sup>
- Interface Traffic\_1\_min Top Conversations for ToS Report:<sup>3</sup>
- Interface Traffic\_1\_min Top Destinations for Applications Report:<sup>4</sup>
- Interface Traffic\_1\_min Top Sources for Application Report:<sup>5</sup>
- Interface Traffic\_1\_min Top Sources for ToS Report:<sup>6</sup>
- Interface Traffic\_1\_min Top Applications Report:<sup>7</sup>

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<sup>1</sup> Displays the top applications across the network for the selected ToS value.

<sup>2</sup> Displays the top talkers (source-destination pairs) across the network for the selected application.

<sup>3</sup> Displays the top talkers (source-destination pairs) across the network for the selected ToS value.

<sup>4</sup> Displays the top destination hosts receiving data packets from different hosts across the network for the selected application.

<sup>5</sup> Displays the top hosts (hosts that send out data packets) across the network generating flow packets mapped to the selected application.

<sup>6</sup> Displays the top source hosts (hosts that send out data packets) across the network generating flow packets with the selected ToS value.

<sup>7</sup> Displays the top N applications across the network that contribute to the network traffic.

- Interface Traffic\_1\_min Top Conversations Report:<sup>1</sup>
- Interface Traffic\_1\_min Top Destinations Report:<sup>2</sup>
- Interface Traffic\_1\_min Top Interfaces Report:<sup>3</sup>
- Interface Traffic\_1\_min Top Sources Report:<sup>4</sup>
- Interface Traffic\_1\_min Top TypeOfService Report:<sup>5</sup>

However, listing all these reports in the NPS Home Page may cause considerable usability problem. Selecting between various types of Top N reports may prove to be a time consuming and repetitive process. To overcome this problem, NNM iSPI Performance for Traffic enables you to select the Top N Analysis report, that works as the launching point for all the 1 minute Top N reports.

#### To launch the Top N reports from the Top N Analysis report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min**.
3. Select **Top N Analysis** .
4. In Report Type panel, select the type of the report you want to launch. and then click **Confirm Selection**. The default selection is Top Interfaces. NNM iSPI Performance for Traffic launches the following reports for each option:
  - Top Conversations: Launches the Interface Traffic\_1\_min Top Conversations Report.
  - Top Interfaces: Launches the Interface Traffic\_1\_min Top Interfaces Report.
  - Top Destinations: Launches the Interface Traffic\_1\_min Top Destinations Report.
  - Top Sources: Launches the Interface Traffic\_1\_min Top Sources Report.

Follow these steps **only** if you have selected any of the following options:

- Top Applications
  - a. Select **Application Name**.

**Note:** NNM iSPI Performance for Traffic sorts the list of applications alphabetically.
  - b. NNM iSPI Performance for Traffic sets the application name to analyze the report data.
  - c. Select any of the following Topology Filters to filter the traffic mapped to the selected application:

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<sup>1</sup>Displays the top talkers (source-destination pairs) across the network. You can use this report to monitor the flow of data between two hosts.

<sup>2</sup> Displays the top N hosts across the network receiving the largest volume of data packets.

<sup>3</sup> Displays the top N interfaces across the network with largest incoming and outgoing traffic volume.

<sup>4</sup> Displays the top N hosts across the network sending largest volume of data packets to different destinations.

<sup>5</sup> Displays the top contributors to traffic based on selected Type of Service (ToS) values.

- Sources for Application: Launches the Interface Traffic\_1\_min Top Sources for Application Report.
- Destinations for Application: Launches the Interface Traffic\_1\_min Top Destinations for Application Report
- Conversations for Application: Launches the Interface Traffic\_1\_min Top Conversations for Application Report
- d. Click **Confirm Selection**.
- Top Type of Service
  - a. Select **Type of Service**.

**Note:** NNM iSPI Performance for Traffic sorts the list of type of services alphabetically.
  - b. NNM iSPI Performance for Traffic sets the selected type of service to analyze the report data.
  - c. Select any of the following Topology Filters to filter the traffic mapped to the selected type of service:
    - Application for ToS: Launches the Interface Traffic\_1\_min Top Applications for ToS Report.
    - Sources for ToS: Launches the Interface Traffic\_1\_min Top Sources for ToS Report.
    - Conversations for ToS: Launches the Interface Traffic\_1\_min Top Conversations for ToS Report.
  - d. Click **Confirm Selection**.

Usually Top Interfaces is the default option for the Top N Analysis report. NNM iSPI Performance for Traffic selects this option automatically every time the Top N Analysis Report is launched. If you select the topology filter as either Application Name or Type of Service (either using the Topology Filter tab or using the drill-down option), then NNM iSPI Performance for Traffic automatically selects the corresponding report-type (Top Application or Top ToS), when 'Top N Analysis' report is launched next

You can set the topology filters directly using Topology Filters tab in NPS Home Page or using the drill-down options in the Top N Analysis Report. Once selected, they can only be removed by the Reset feature. However, the specific filters applied to a report depends on that report only. For example, even if you have set the topology filter on Application Name, if the report launched is Top ToS, NNM iSPI Performance for Traffic does not use the filter you have set, as Application Name is not included in the Topology Selector of the Top ToS report.

To check which are the applicable fields to filter on a particular report Launch Topology Selector in the context of that report. That is, first launch that report and then launch the Topology Selector using the Topology Filters tab.

To remove or change the values of a topology filter, select Topology Filters from the navigation panel, and click **Launch Topology Selector** button.

## Interface Traffic 1 Min Top N Chart Analysis Report

NNM iSPI Performance for Traffic categorizes the traffic data stored in NPS to effectively serve queries and retain larger volume of data for longer time periods. The following reports enable you to

analyze the categorized traffic data based on data retention period, traffic type (traffic mapped to application, ToS, conversations, etc), and the source or destination for the traffic flow:

Available 1 Minute Top N Chart Reports

- Interface Traffic 1 min - Applications\_for\_ToS - Top N Chart Report:<sup>1</sup>
- Interface Traffic 1 min - Conversations\_for\_Application - Top N Chart Report:<sup>2</sup>
- Interface Traffic 1 min - Conversations\_for\_ToS - Top N Chart Report:<sup>3</sup>
- Interface Traffic 1 min - Destinations\_for\_Applications - Top N Chart Report:<sup>4</sup>
- Interface Traffic 1 min - Sources\_for\_Application - Top N Chart Report:<sup>5</sup>
- Interface Traffic 1 min - Sources\_for\_ToS - Top N Chart Report:<sup>6</sup>
- Interface Traffic 1 min -Top\_Applications - Top N Chart Report:<sup>7</sup>
- Interface Traffic 1 min - Top\_Conversations - Top N Chart Report:<sup>8</sup>
- Interface Traffic 1 min - Top\_Destinations - Top N Chart Report:<sup>9</sup>
- Interface Traffic 1 min - Top\_Interfaces - Top N Chart Report:<sup>10</sup>
- Interface Traffic 1 min - Top\_Sources - Top N Chart Report:<sup>11</sup>
- Interface Traffic 1 min - Top\_TypeOfService - Top N Chart Report:<sup>12</sup>

However, listing all these reports in the NPS Home Page may cause considerable usability problem. Selecting between various types of Top N Chart reports may prove to be a time consuming and repetitive process. To overcome this problem, NNM iSPI Performance for Traffic enables you to select the Top N Chart Analysis report, that works as the launching point for all the 1 minute Top N Chart reports.

**To launch the Top N Chart reports from the Top N Chart Analysis report:**

1. In the NPS console, go to the Reports workspace.

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<sup>1</sup>Displays the top applications across the network for the selected ToS value.

<sup>2</sup> Displays the top talkers (source-destination pairs) across the network for the selected application.

<sup>3</sup> Displays the top talkers (source-destination pairs) across the network for the selected ToS value.

<sup>4</sup> Displays the top destination hosts receiving data packets from different hosts across the network for the selected application.

<sup>5</sup> Displays the top hosts (hosts that send out data packets) across the network generating flow packets mapped to the selected application.

<sup>6</sup> Displays the top source hosts (hosts that send out data packets) across the network generating flow packets with the selected ToS value.

<sup>7</sup> Displays the top N applications across the network that contribute to the network traffic.

<sup>8</sup>Displays the top talkers (source-destination pairs) across the network. You can use this report to monitor the flow of data between two hosts.

<sup>9</sup> Displays the top N hosts across the network receiving the largest volume of data packets.

<sup>10</sup> Displays the top N interfaces across the network with largest incoming and outgoing traffic volume.

<sup>11</sup> Displays the top N hosts across the network sending largest volume of data packets to different destinations.

<sup>12</sup> Displays the top contributors to traffic based on selected Type of Service (ToS) values.

2. Click **iSPI Traffic > Interface Traffic\_1\_min**.
3. Select **Top N Chart Analysis**.
4. In Report Type panel, select the type of the report you want to launch. and then click **Confirm Selection**. The default selection is Top Interfaces. NNM iSPI Performance for Traffic launches the following reports for each option:
  - Top Conversations: Launches the Interface Traffic 1 min - Top\_Conversations - Top N Chart Report.
  - Top Interfaces: Launches the Interface Traffic 1 min - Top\_Interfaces - Top N Chart Report.
  - Top Destinations: Launches the Interface Traffic 1 min - Top\_Destinations - Top N Chart Report.
  - Top Sources: Launches the Interface Traffic 1 min - Top\_Sources - Top N Chart Report.

Follow these steps **only** if you have selected any of the following options:

- Top Applications
  - a. Select **Application Name**.

**Note:** NNM iSPI Performance for Traffic sorts the list of applications alphabetically.
  - b. NNM iSPI Performance for Traffic sets the application name to analyze the report data.
  - c. Select any of the following Topology Filters to filter the traffic mapped to the selected application:
    - Sources for Application: Launches the Interface Traffic 1 min - Sources\_for\_Application - Top N Chart Report.
    - Destinations for Application: Launches the Interface Traffic 1 min - Destinations\_for\_Applications - Top N Chart Report
    - Conversations for Application: Launches the Interface Traffic 1 min - Conversations\_for\_Application - Top N Chart Report
  - d. Click **Confirm Selection**.
- Top Type of Service
  - a. Select **Type of Service**.

**Note:** NNM iSPI Performance for Traffic sorts the list of type of services alphabetically.
  - b. NNM iSPI Performance for Traffic sets the selected type of service to analyze the report data.
  - c. Select any of the following Topology Filters to filter the traffic mapped to the selected type of service:
    - Application for ToS: Launches the Interface Traffic 1 min - Applications\_for\_ToS - Top N Chart Report.
    - Sources for ToS: Launches the Interface Traffic 1 min - Sources\_for\_ToS - Top N Chart Report.
    - Conversations for ToS: Launches the Interface Traffic 1 min - Conversations\_for\_ToS - Top N Chart Report.
  - d. Click **Confirm Selection**.

Usually Top Interfaces is the default option for the Top N Analysis report. NNM iSPI Performance for Traffic selects this option automatically every time the Top N Analysis Report is launched. If you select the topology filter as either Application Name or Type of Service (either using the Topology Filter tab or using the drill-down option), then NNM iSPI Performance for Traffic automatically selects the corresponding report-type (Top Application or Top ToS), when 'Top N Analysis' report is launched next

You can set the topology filters directly using Topology Filters tab in NPS Home Page or using the drill-down options in the Top N Analysis Report. Once selected, they can only be removed by the Reset feature. However, the specific filters applied to a report depends on that report only. For example, even if you have set the topology filter on Application Name, if the report launched is Top ToS, NNM iSPI Performance for Traffic does not use the filter you have set, as Application Name is not included in the Topology Selector of the Top ToS report.

To check which are the applicable fields to filter on a particular report Launch Topology Selector in the context of that report. That is, first launch that report and then launch the Topology Selector using the Topology Filters tab.

To remove or change the values of a topology filter, select Topology Filters from the navigation panel, and click **Launch Topology Selector** button.

## Interface Traffic\_1\_min Top TypeOfService Report

The Interface Traffic\_1\_min Top TypeOfService Report is a Top N report. This report shows top contributors to traffic based on Type of Service (ToS) values across the network. Use the 'Select Metric(s)' option to rank ToS values against different metrics. You can further set a filter by clicking on a top Type of Service value, and then analyze further.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows ToS values of flow packets (ingress and egress) with the maximum amount of data (in bytes).

### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top TypeOfService**.
3. Double-click **Top N**. The report appears.

### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, and 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Type of Service
- Time Range = Last 1 hour
- Grain = 5 minutes



- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_1\_min Top Sources Report

The Interface Traffic\_1\_min Top Sources Report is a Top N report. This report shows top N hosts across the network that send data packets to different destinations. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (senders of data packets) that sent maximum amount of data (in bytes).

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top Sources**.
3. Double-click **Top N**. The report appears.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_1\_min Top Destinations Report

The Interface Traffic\_1\_min Top Destinations Report is a Top N report. This report shows top N hosts across the network that receive data packets. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (recipients of data packets) that received the maximum amount of data (in bytes).

### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top Destinations**.
3. Double-click **Top N**. The report appears.

### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_1\_min Top Applications Report

The Interface Traffic\_1\_min Top Applications Report is a Top N report. This report shows top N applications across the network that contribute to the network traffic. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

The NNM iSPI Performance for Traffic provides you with predefined application definitions. You can use the NNM iSPI Performance for Traffic Configuration form to modify the existing application definitions or create new application definitions.

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top\_Applications**.
3. Double-click **Top N**. The report appears.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top Applications report enables you to choose the following additional bandwidth metrics that are not available with other reports:

- Bandwidth - In Mbps (min)
- Bandwidth - In Mbps (max)
- Bandwidth - In Mbps (avg)
- Bandwidth - Out Mbps (min)
- Bandwidth - Out Mbps (max)
- Bandwidth - Out Mbps (avg)
- Bandwidth Utilization (min)
- Bandwidth Utilization (max)
- Bandwidth Utilization (avg)

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.


## Interface Traffic\_1\_min Top Conversations Report

A **conversation** means the flow of data between two hosts. You can use NNM iSPI Performance for Traffic Top Conversations reports to monitor the top talkers in the environment.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

By default, this report shows top N hosts across the network that receive data packets. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of traffic performance indicators for every source-destination pair, or in other words, for every conversation.

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top Conversations**.
3. Double-click **Top N**. The report appears.
4. Click **Options**.
5. Under the "Grouping By" section, click . A new drop-down list appears.
6. In the new drop-down list, select **Source Host Name**.
7. Click **Confirm Selection**.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_1\_min Top Interfaces Reports

This group of reports presents Chart Detail, Heat Chart, Peak period, and Top N reports on interfaces that contribute to the network traffic. These reports are generated with the data aggregated at every 1 minute over the last 31 days.

#### To launch these reports:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top\_Interfaces**.
3. Double-click the report that you want to view.

## Interface Traffic\_1\_min Top Interfaces Chart Detail

Chart Detail report enables you to perform a trend analysis for the health and performance of top contributors to the network traffic based on historical flow traffic data (as old as 31-day old data).


The Chart Detail report displays a comparative analysis of the selected metrics for each time unit.


### Features and Defaults

The graph on this report tracks up to six metrics over the selected time period.

Unless you modify the defaults, Chart Detail defaults to the following:

- Flow collectors = All
- Metric on the Y1 axis = Period Length (secs) (sum)
- Metric on the Y1 axis = Volume - In Bytes (sum)

To add another primary or secondary metric, click **Options** , and then click .

To remove a primary or secondary metric that you have already added, click **Options** , and then click .

The Chart Detail report enables you to view the data in the tabular format as well. To view the table, click **Options**, and then select Table. The Table appears instead of the chart. To view both the chart and the table, click **Options**, and then select Chart and Table.

## Interface Traffic\_1\_min Top Interfaces Heat Chart

The Heat Chart report provides the hourly or daily performance of a single metric in a color-coded format for the contributors to the network traffic. This report cannot operate with a time range of less than 24 hours.

### Features and Defaults

The legend at the top of the report maps a range of normalized performance values to a particular color. Beneath the legend, a table represents the normalized values of a performance metric (rows of the table represent hours of the day; columns of the table represent days). Each cell inside the table is color-coded and each cell inside the table indicates a specific value of the metric.

You can move the mouse pointer on the cell to see the data for each hour.

The default options for the Heat Chart are as follows:

- Interfaces = All
- Time Period = Last 1 Hour (you must change this to at least 1 day; the Heat Chart report cannot operate with a time range of less than 24 hours)
- Hour of Day = All
- Day of Week = All
- Metric = Volume – In Byte (sum)

## Interface Traffic\_1\_min Top Interfaces Peak Period

The Interface Traffic\_1\_min Top Interfaces Peak Period report shows the periods when the most amount of data exchange took place in the selected time range. The format of the report is similar to that of Top N reports. You can select metrics that indicate the performance of the network traffic, such as Volume - In Bytes (sum), Volume - Out Bytes (sum), Number of Flows Incoming (sum), and so on, to view the period when the metrics reached their highest values.

### Features and Defaults

The Interface Traffic\_1\_min Top Interfaces Peak Period Report defaults to:

Interfaces (interfaces that are configured to report flow packets) = All

Dates/Times = Last 1 hour

Primary Metric (Yellow in the graph) = Volume - In Bytes (sum)

Secondary Metric (blue in the graph) = Volume - Out Bytes (sum)

Grouping By Time Period = Hour

Top/Bottom N = Top 10

## Interface Traffic\_1\_min Top Interfaces Top N



This report ranks flow-enabled interfaces or nodes by the metric you select. Use this report to spot the interface or node that performed at the extremes. You can use this report to analyze the historical data for elements that are exhibiting unusual utilization levels.

### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (Add New Grouping) button. Use the  (Remove Grouping) button to remove a grouping attribute.

### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_1\_min Top Applications by ToS Report

The Interface Traffic\_1\_min Top Applications by ToS Report is a Top N report. This report shows top applications across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic\_1\_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top applications for the selected ToS value. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top applications that contributed with the maximum amount of data to the network traffic characterized by the ToS value 25.

### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top TypeOfService**.
3. Double-click **Top N**. The report appears.
4. On the report, click a ToS value of your choice. The following message appears on the page:  
`Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.`
5. In the navigation pane, click **iSPI Traffic > Interface Traffic\_1\_min > Top Applications\_By\_ToS**, and then double-click **Top N**. The top N applications for the selected ToS are displayed on the report.

### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_1\_min Top Sources by ToS Report

The Interface Traffic\_1\_min Top Sources by ToS Report is a Top N report. This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets with a specific ToS value; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic\_1\_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top source hosts for the selected ToS value. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top hosts that sent the maximum amount of data (in bytes) for the flow packets with the ToS value of 25.

### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top TypeOfService**.
3. Double-click **Top N**. The report appears.
4. On the report, click a ToS value of your choice. The following message appears on the page:  
`Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.`
5. In the navigation pane, click **iSPI Traffic > Interface Traffic\_1\_min > Top Sources\_By\_ToS**, and then double-click **Top N**. The top N sources for the selected ToS are displayed on the report.

### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.




## Interface Traffic\_1\_min Top Conversations by ToS Report

The Interface Traffic\_1\_min Top Conversations by ToS Report is a Top N report. This report shows top talkers (source-destination pairs) across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic\_1\_min Top TypeOfService report first, select a ToS value, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top talkers contributing to network traffic with the ToS value 25.

### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top TypeOfService**.
3. Double-click **Top N**. The report appears.
4. On the report, click a ToS value of your choice. The following message appears on the page:  
`Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.`
5. In the navigation pane, click **iSPI Traffic > Interface Traffic\_1\_min > Top Conversations\_By\_ToS**, and then double-click **Top N**. The report appears.
6. On the report, click **Options**.
7. Under the "Grouping By" section, click . A new drop-down list appears.
8. In the new drop-down list, select **Source Host Name**.
9. Click **Confirm Selection**.

### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.


## Interface Traffic\_1\_min Top Conversations for Application Report

The Interface Traffic\_1\_min Top Conversations for Application Report is a Top N report. This report shows top talkers (source-destination pairs) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic\_1\_min Top Applications report first, select an application, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top talkers that contribute to the SNMP network traffic.

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top Applications**.
3. Double-click **Top N**. The report appears.
4. On the report, click a ToS value of your choice. The following message appears on the page:  
Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.
5. In the navigation pane, click **iSPI Traffic > Interface Traffic\_1\_min > Top Conversations\_ for\_Application**, and then double-click **Top N**. The report appears.
6. On the report, click **Options**.
7. Under the "Grouping By" section, click . A new drop-down list appears.
8. In the new drop-down list, select **Source Host Name**.
9. Click **Confirm Selection**.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_1\_min Top Sources by Applications Report

The Interface Traffic\_1\_min Top Sources by Application Report is a Top N report. This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets that are mapped to a specific application; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic\_1\_min Top Applications report first, select an application, and then launch this report. The report shows top source hosts for the selected application. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top hosts that sent the maximum amount of the SNMP traffic.

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top TypeOfService**.
3. Double-click **Top N**. The report appears.
4. On the report, click a ToS value of your choice. The following message appears on the page:  
`Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.`
5. In the navigation pane, click **iSPI Traffic > Interface Traffic\_1\_min > Top Sources\_By\_ToS**, and then double-click **Top N**. The top N sources for the selected ToS are displayed on the report.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Interface Traffic\_1\_min Top Destinations by Applications Report

The Interface Traffic\_1\_min Top Destinations by Application Report is a Top N report. This report shows top hosts (which receive data packets from different hosts) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic\_1\_min Top Applications report first, select an application, and then launch this report. The report shows top destination hosts for the selected application. You can use the 'Select Metric(s)' option to rank the destination hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows the hosts that received the maximum amount of data (in bytes) for SNMP.

#### To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface Traffic\_1\_min > Top Applications**.
3. Double-click **Top N**. The report appears.
4. On the report, click an application of your choice. The following message appears on the page:  
`Your drillthrough selection has been recorded. Use the navigation panel on the left to select a report.`
5. In the navigation page, click **iSPI Traffic > Interface Traffic\_1\_min > Top Destinations\_By\_Application**, and then double-click **Top N**. The top N destinations for the selected application are displayed on the report.

#### Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

#### Show Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

**Note:** The Show Chart option executes a time-consuming query; therefore, it is provided as an option.

## Dashboard Reportlets

Dashboard reportlets (Reportlets) enable you to view a snapshot of reports at a faster speed. Reportlets display only one metric (however, you can choose multiple 'Grouping by' metrics). You can use the bookmarks generated by the Reportlets to construct custom dashboards. For more information, see the [Creating Custom Dashboard Using BI Portal](#).

## Top Type of Service Group

This group of reportlets presents Top N reportlets for type of service (ToS) values.

### Top N Chart

This reportlet shows values of the metric you select for top ToS values. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

### Top N Line Chart

This reportlet shows values of the metric you select for top ToS values. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

### Top N Stacked Chart

This reportlet shows values of the metric you select for top ToS values. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Table

This reportlet shows values of the metric you select for top ToS values. The reportlet displays the distribution of data over the range of time in the form of a table.

#### Top N Table with Bars

This reportlet shows values of the metric you select for top ToS values. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

#### Top Sources Group

This group of reportlets presents Top N reportlets for source hosts.

#### Top N Chart

This reportlet shows values of the metric you select for top source hosts. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Line Chart

This reportlet shows values of the metric you select for top source hosts. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

#### Top N Stacked Chart

This reportlet shows values of the metric you select for top source hosts. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Table

This reportlet shows values of the metric you select for top source hosts. The reportlet displays the distribution of data over the range of time in the form of a table.

#### Top N Table with Bars

This reportlet shows values of the metric you select for top source hosts. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

#### Top Destinations Group

This group of reportlets presents Top N reportlets for destination hosts.

#### Top N Chart

This reportlet shows values of the metric you select for top destination hosts. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Line Chart

This reportlet shows values of the metric you select for top destination hosts. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

#### Top N Stacked Chart

This reportlet shows values of the metric you select for top destination hosts. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Table

This reportlet shows values of the metric you select for top destination hosts. The reportlet displays the distribution of data over the range of time in the form of a table.

#### Top N Table with Bars

This reportlet shows values of the metric you select for top source destinations. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

#### Top Applications Group

This group of reportlets presents Top N reportlets for applications.

#### Top N Chart

This reportlet shows values of the metric you select for top applications. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Line Chart

This reportlet shows values of the metric you select for top applications. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

#### Top N Stacked Chart

This reportlet shows values of the metric you select for top applications. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By'

metric value represented by a unique color.

### Top N Table

This reportlet shows values of the metric you select for top applications. The reportlet displays the distribution of data over the range of time in the form of a table.

### Top N Table with Bars


This reportlet shows values of the metric you select for top applications. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

### Top Interfaces Group

This group of reportlets presents Top N reportlets for interfaces.


### Top N Chart

This reportlet shows values of the metric you select for top interfaces that contribute to the network traffic. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.


### Top N Line Chart

This reportlet shows values of the metric you select for top interfaces that contribute to the network traffic. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.

### Top N Stacked Chart


This reportlet shows values of the metric you select for top interfaces that contribute to the network traffic. The reportlet displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By' metric value represented by a unique color.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.




#### Top N Table

This reportlet shows values of the metric you select for top interfaces that contribute to the network traffic. The reportlet displays the distribution of data over the range of time in the form of a table.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.

#### Top N Table with Bars

This reportlet shows values of the metric you select for top interfaces that contribute to the network traffic. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

By default, this reportlet shows the Volume - In Bytes (sum) metric for the last one hour grouped by Qualified Interface Names. The default time grain is five minutes. You can choose multiple 'Grouping By' metrics with the help of the  icon.

#### Top Conversations Group

This group of reportlets presents reportlets for top talkers in the environment.

#### Top N Chart

This reportlet shows values of the metric you select for top talkers in the environment. By default, the reportlet shows data only for top destination hosts. To view data for conversations, you must add another 'Grouping By' metric and set the added metric to Source Host Name. The reportlet displays the distribution of data over the range of time in the format of a chart, with each 'Grouping By' metric value represented by a unique color.

#### Top N Line Chart

This reportlet shows values of the metric you select for top talkers in the environment. By default, the reportlet shows data only for top destination hosts. To view data for conversations, you must add another 'Grouping By' metric and set the added metric to Source Host Name. The reportlet displays the distribution of data over the range of time in the format of a line graph, with each 'Grouping By' metric value represented by a unique color.

#### Top N Stacked Chart

This reportlet shows values of the metric you select for top talkers in the environment. By default, the reportlet shows data only for top destination hosts. To view data for conversations, you must add another 'Grouping By' metric and set the added metric to Source Host Name. The reportlet

displays the distribution of data over the range of time in the format of a stacked chart, with each 'Grouping By' metric value represented by a unique color.

### Top N Table

This reportlet shows values of the metric you select for top talkers in the environment. By default, the reportlet shows data only for top destination hosts. To view data for conversations, you must add another 'Grouping By' metric and set the added metric to Source Host Name. The reportlet displays the distribution of data over the range of time in the form of a table.

### Top N Table with Bars

This reportlet shows values of the metric you select for top talkers in the environment. By default, the reportlet shows data only for top destination hosts. To view data for conversations, you must add another 'Grouping By' metric and set the added metric to Source Host Name. The reportlet displays the distribution of data over the range of time in the form of a table with a bar chart.

## Glossary of Metrics

The NNM iSPI Performance for Traffic provides you with the following metrics to analyze the network traffic:

### Period Length

Period Length is the amount of time for which an individual record represents data.

### Volume - In Bytes

The Volume - In- Bytes metric represents the volume of incoming traffic reported by a flow interface specific to the node or interface measured in bytes.

### Volume - Out Bytes

Volume - Out Bytes metric represents the volume of outgoing traffic to the specified node or interface measured in bytes.

### Number of Packets (Incoming)

Number of Packets ( Incoming) represents the number of incoming traffic reported by a flow interface specific to the node or component.

### Number of Packets (Outgoing)

Number of Packets (Outgoing) represents the number of outgoing traffic reported by a flow interface specific to the node or component.

### Number of Flows (Incoming)

Number of Flows ( Incoming) represents the number of incoming traffic reported by a flow interface specific to the node or component.

## Number of Flows (Outgoing)

Number of Flows (Outgoing) represents the number of outgoing traffic reported by a flow interface specific to the node or component.

## Sample Count

Sample Count is the number of flow records in the database.

## countDistinct Metrics

Use countDistinct metrics only for the *Grouping By* selection operation. Do not use these metrics as the primary or secondary metrics of the report. You may, however, use one of the countDistinct metrics to diagnose specific problems by using the Top N reports.

## Flow Version

The version of the IP flow protocol (Netflow, Sflow, or IPFIX).

## IP Protocol

IP protocol used by the IP flow.

## Class of Service

Class of Service of the IP flow defined by the user with the help of the NNM iSPI Performance for Traffic Configuration form.

## Application Name

Application that is associated with the IP flow. The NNM iSPI Performance for Traffic provides a set of out-of-the-box application definitions; you can also create new application definitions.

## Source Port

Port where IP flows originate. This release of the NNM iSPI Performance for Traffic cannot preserve this value; this metric always defaults to 0.

## Destination Port

Port on the host where IP flows terminate.

## Source Port IP Address

IP address of the host where IP flows originate.

## Destination Port IP address

IP address of the host where IP flows terminate.

#### Source Host Name

Hostname of the node where the IP flows originate. This metric corresponds to the DNS-resolved name for the Source IP address.

#### Destination Host Name

Hostname of the node where the IP flows terminate.

#### Source Vlan ID

VLAN ID of the node where the IP flow originates.

#### Destination Vlan ID

VLAN ID of the node where the IP flow terminates.

#### Source Vlan

VLAN where the IP flows originate. This metric refers to the VLAN entity in NNMI in certain cases.

#### Destination Vlan

VLAN where the IP flows terminate.

#### Collector Name

Name of the flow collector.

#### Source Site Name

Name of the site where flows originate. To use this metric, you must define Sites with the help of the NNM iSPI Performance for Traffic Configuration form.

#### Destination Site Name

Name of the site where flows terminate. To use this metric, you must define Sites with the help of the NNM iSPI Performance for Traffic Configuration form.

#### Type of Service

Type of Service attribute for the flow.

#### Bandwidth - In Megabits per Second (Average, Maximum, and Minimum)

Volume of traffic flowing in to the selected nodes or interfaces in one second.

#### Bandwidth - Out Megabits per Second (Average, Maximum, and Minimum)

Volume of traffic flowing out of the selected nodes or interfaces in one second.

### **Bandwidth Utilization (Average, Maximum, and Minimum)**

Volume of incoming and outgoing traffic through the selected nodes or interfaces (calculated based on the specified time range).

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## Glossary

### B

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#### **bandwidth**

The aggregated data, for the selected protocols, that is transferred from the router or switch to the leaf collector.

### O

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#### **ODBID**

ODBID is a custom attribute that the HP Network Node Manager i-Series Software (NNMi) topology uses to integrate the NNMi topology with Business Service Management (BSM) software suite. The Smart Plug-Ins (SPIs) get this attribute from NNMi during the discovery and keep a reference. You can use ODBID as a report topology filter.

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